```
public class Object
public class C1 extends Object
public class C2 extends C1
```

FIG. 1A

```
public class Object
public class C1 extends Object
class PrivateClass extends C1
public class C2 extends PrivateClass
```
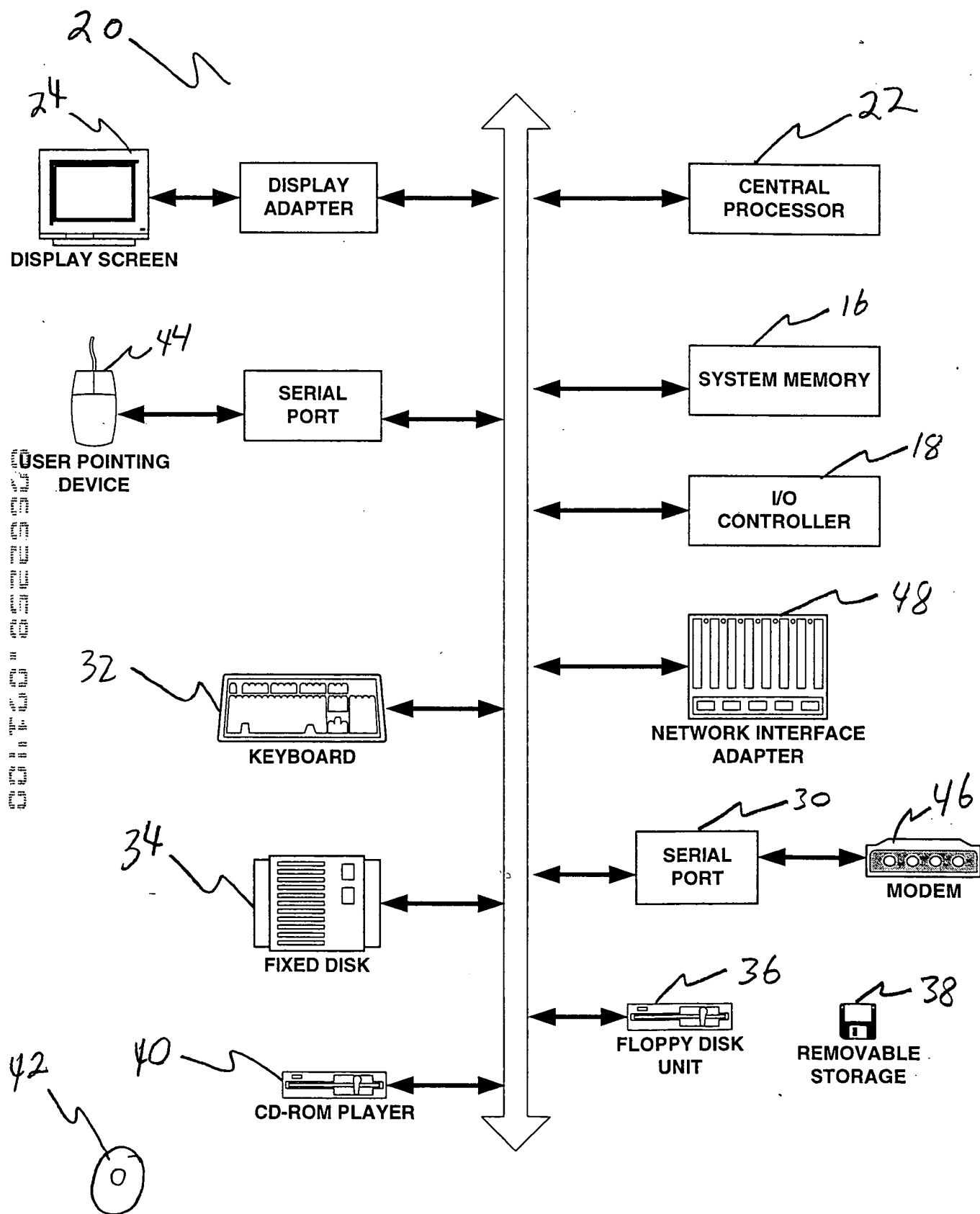
FIG. 1B

EL575422638US
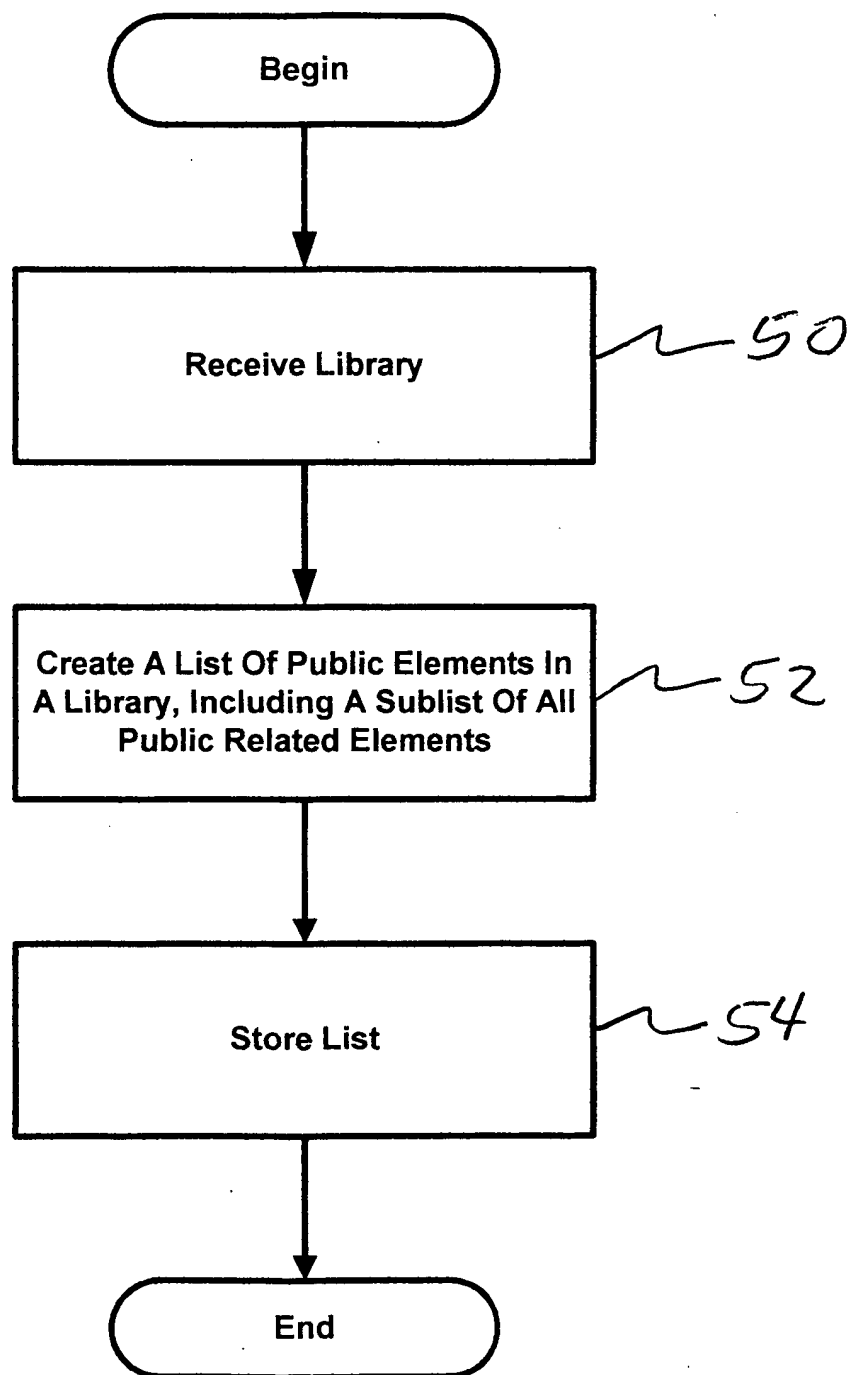
SUN-P4175

20

24

DISPLAY SCREEN

DISPLAY ADAPTER

22

CENTRAL PROCESSOR

44

USER POINTING DEVICE

SERIAL PORT

16

SYSTEM MEMORY

18

I/O CONTROLLER

48

NETWORK INTERFACE ADAPTER

32

KEYBOARD

34

FIXED DISK

30

SERIAL PORT

46

MODEM

36

FLOPPY DISK UNIT

38

REMOVABLE STORAGE

40

CD-ROM PLAYER

42

Fig. 2 A

```
        ┌─────────────┐
        │    Begin    │
        └─────────────┘
               │
               ▼
   ┌───────────────────────┐
   │                       │        ~50
   │    Receive Library    │
   │                       │
   └───────────────────────┘
               │
               ▼
   ┌───────────────────────────────┐
   │ Create A List Of Public Elements In │   ~52
   │ A Library, Including A Sublist Of All │
   │   Public Related Elements     │
   └───────────────────────────────┘
               │
               ▼
   ┌───────────────────────┐
   │                       │        ~54
   │      Store List       │
   │                       │
   └───────────────────────┘
               │
               ▼
        ┌─────────────┐
        │     End     │
        └─────────────┘
```

Fig. 2B

```
                              ~60
public class Object
    superclasses = <none>
                              ~58
public class C1
    superclasses = Object
public class C2
    superclasses = C1, Object
                              56
```

FIG. 2C


```
                              ~62
public class C1
    superclasses = <none>
                              64
public class Object
    superclasses = C1
public class C2
    superclasses = C1, Object
                              66
```

FIG. 2D

Begin

70 → Receive API

72 → Receive First Element

74 → Is First Element In Sublist For Second Public Element ?

No

Yes

78 → 76 →

Indicate First Element Is A Direct Parent Of Second Element

Yes ← Is First Element In Sublist For Any Other Public Element Listed In Sublist For Second Element ?

No

68 → Indicate First Element Is An Indirect Parent Of Second Element

No ← Another Element ? → Yes

End

Fig. 3A

Object ~ 80

C1 ~ 82

C2 ~ 75

FIG. 3B

C1 ~ 95

Object ~ 85

C2 ~ 90

FIG. 3C

| Object | ~130 |

C1 ~125

add new C3 →

C2 ~120

FIG. 4A

| Object | ~115 |

C1 ~110
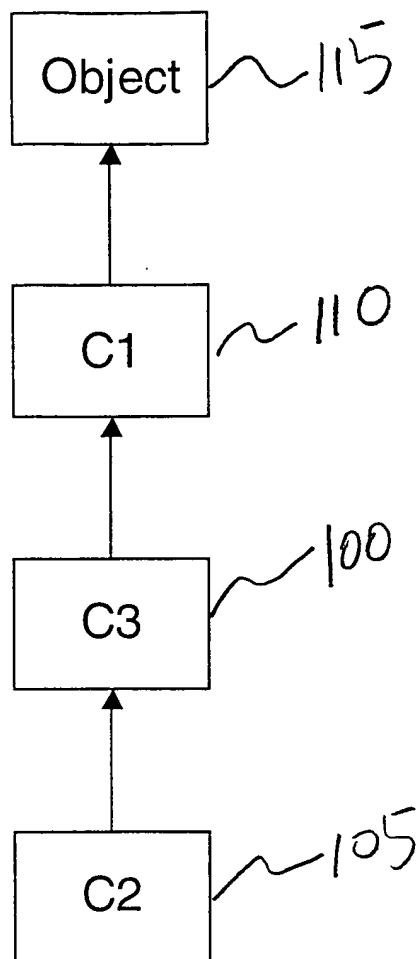
C3 ~100

C2 ~105

FIG. 4B

150

```
public class Object
    superclasses = <none>          155
public class C1
    superclasses = Object
public class C2
    superclasses = C1, Object
```

160

FIG. 5A

165
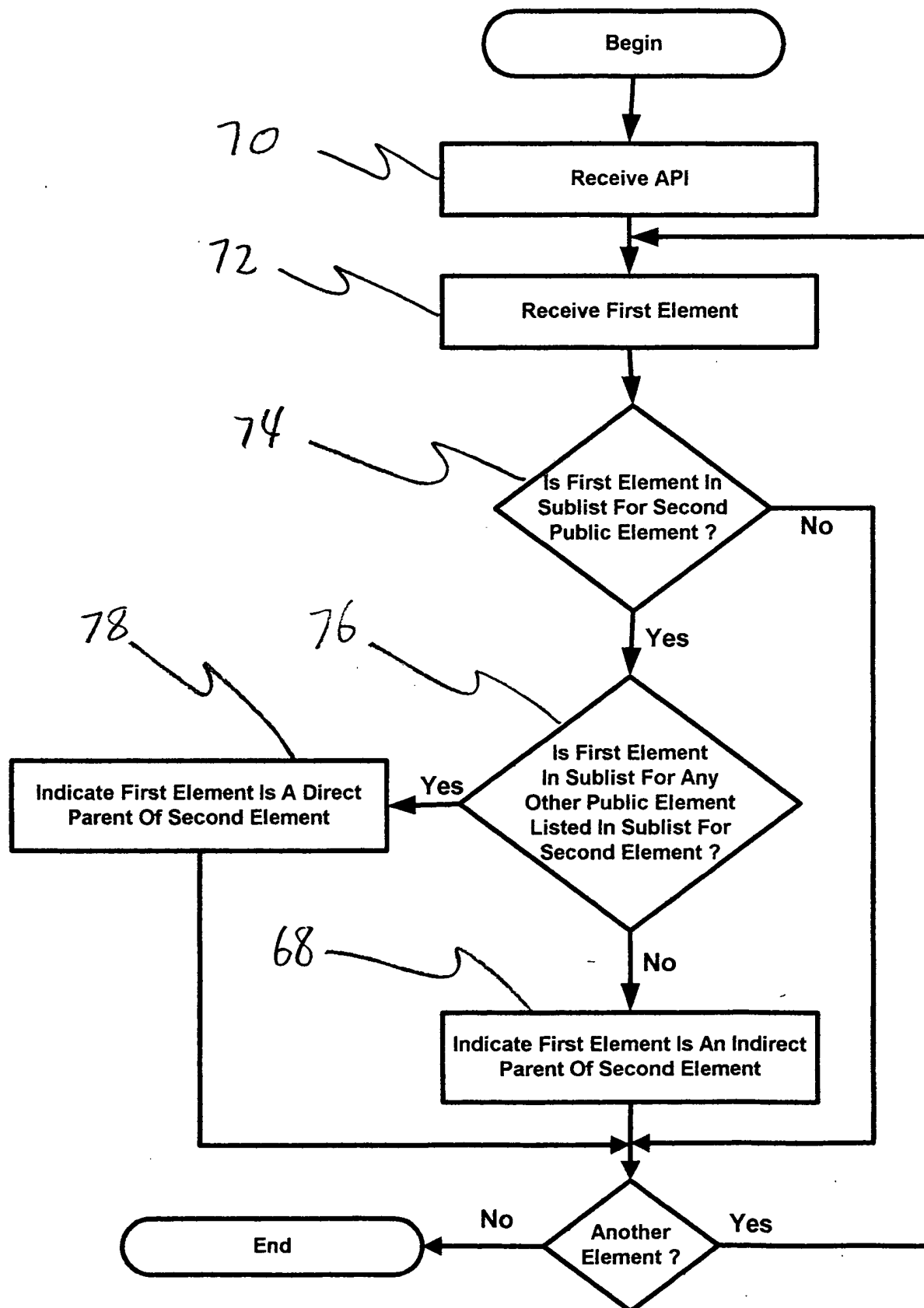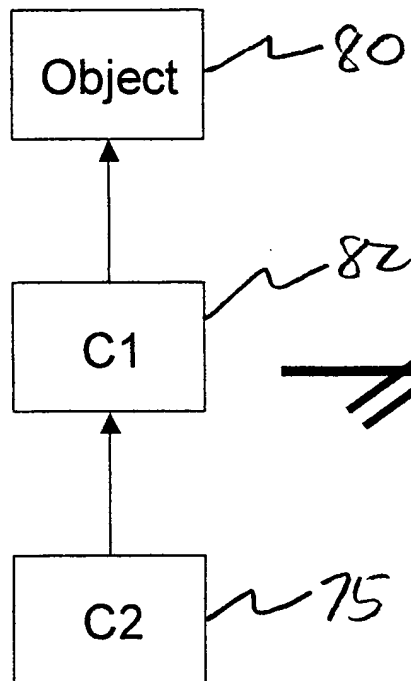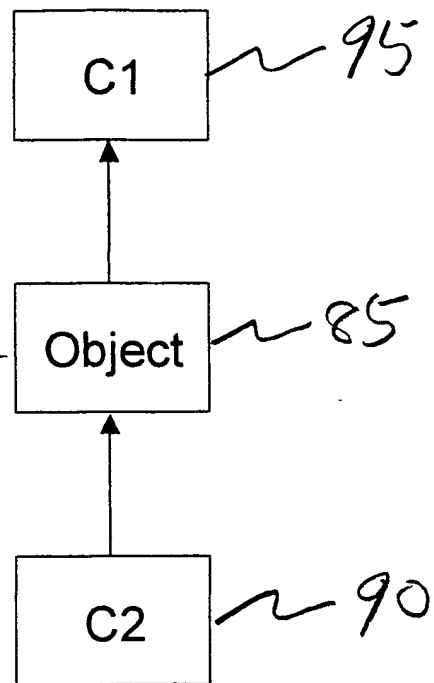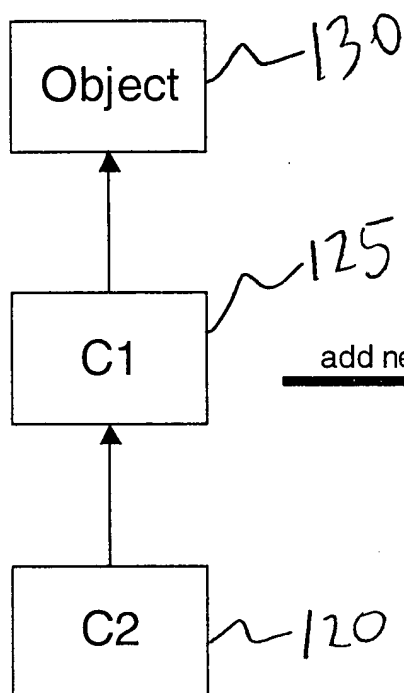
```
public class Object
    superclasses = <none>          170
public class C1
    superclasses = Object          175
public class C3
    superclasses = C1, Object
public class C2
    superclasses = C3, C1, Object
```
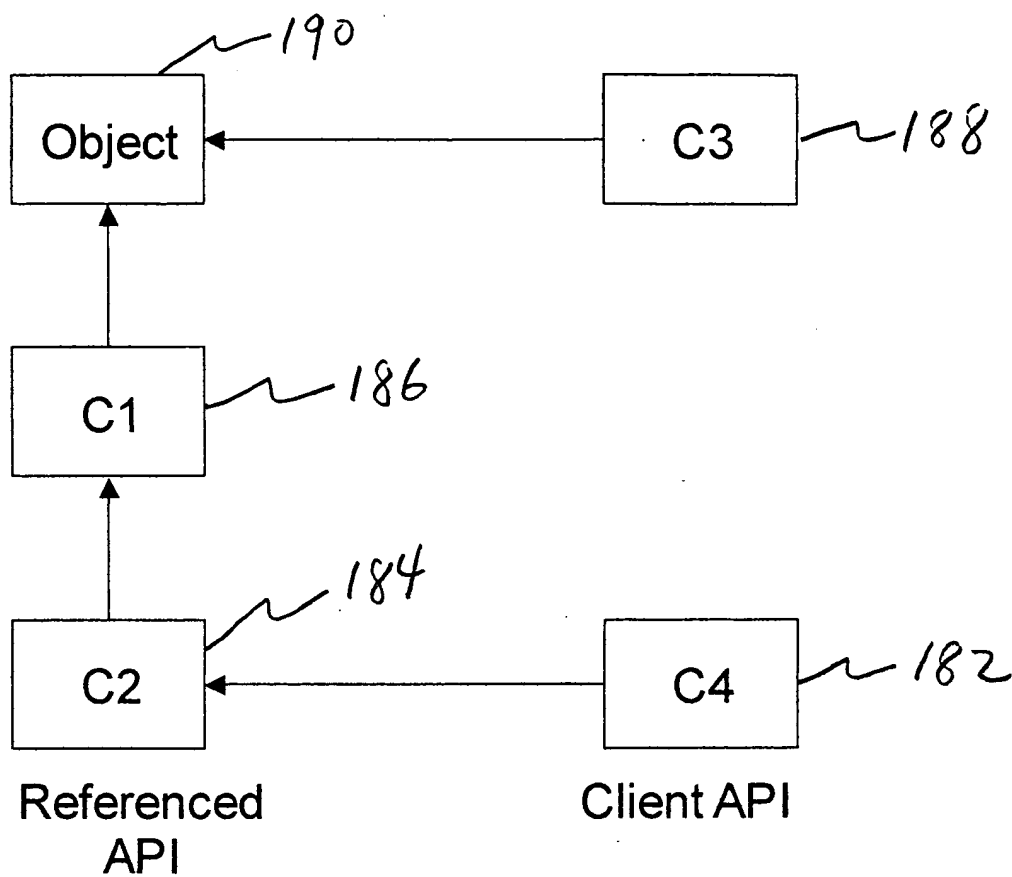
180

FIG. 5B

190

Object ← C3 *188*

C1 *186*

C2 *184*

C4 *182*

Referenced API

Client API

FIG. 6A

```
public class C3 extends Object    ⌒ 200
public class C4 extends C2 ⌐
                              ⌐ 205
```

FIG. 6B

```
                    ⌒ 210
public class C3              ⌒ 215
    superclasses = Object
public class C4⌐
    superclasses|= C2, C1, Object
               |
              220
```

FIG. 6C